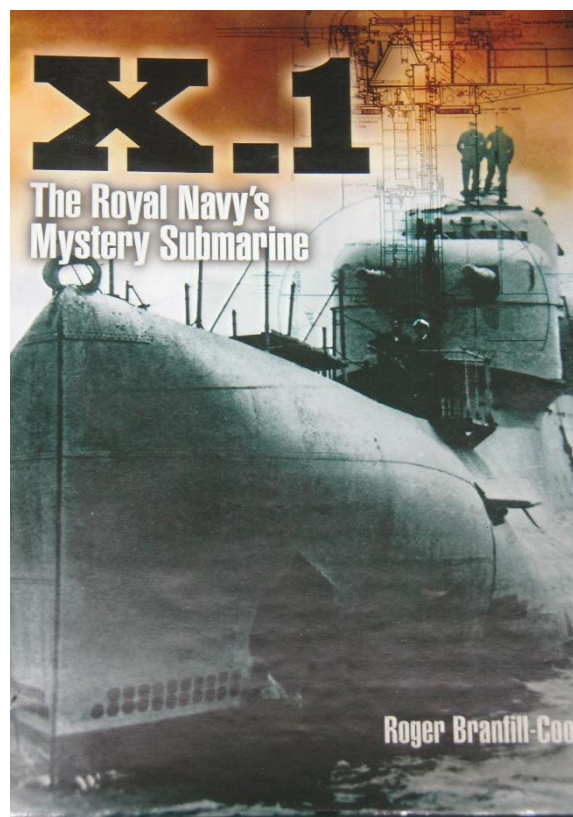


BOOK REVIEW**X.1 THE ROYAL NAVY'S MYSTERY SUBMARINE****BY ROGER BRANFILL-COOK****PUBLISHED BY SEAFORTH PUBLISHING****AN IMPRINT OF PEN & SWORD BOOKS LTD (HB) ISBN 978 1 84832 161 8**

A proposal for the building of a large submarine cruiser fitted with large guns for the purpose of sinking enemy merchant vessels and their convoy escorts by gunfire, in times of war had been discussed by the Admiralty in 1915 and rejected. It was not until after the ending of the First World War that the idea was again reviewed. The Admiralty had taken into consideration the use by the Germans of submarine cruisers during the war and of their potential long range operational capabilities for the Royal Navy. The outcome of their deliberations was the ordering under the 1921-1922 Naval Estimates the construction of the experimental submarine cruiser X.1. Great Britain had signed the 1922 Washington Naval Treaty and were aware that although submarines were not banned their use against merchant shipping was. Designed to be equipped with 2 x twin 5.2-inch QF guns the building of X.1 was shrouded in secrecy, creating a myth of the 'mystery submarine'.



X.1 was laid down at Chatham Dockyard in November 1921, launched in June 1923 and commissioned in December 1925. With a full load surface displacement of just over 3,000-tons and overall length of 363.5-ft she was at that time the largest submarine in the world. Of double-hull construction, the external hull contained fuel tanks in addition to the main ballast tanks. The circular pressure hull was 1-inch in thickness and was divided into ten watertight compartments.

The author of this excellent book informs the reader of the historical background of large submarines including the infamous steam powered 'K' and 'M' Class submarines and German submarine cruisers. He continues by examining the design criteria, surface and submerged manoeuvrability and control, operational and combat efficiency of these large submarines.

Technical information about the main propulsion, auxiliary machinery and equipment fitted in the X.1 is systematically and precisely explained in understandable language for both the technical and non-technical reader. Some of the equipment was not specially designed for the X.1. The two auxiliary diesel engines were taken from the surrendered German U-126, the steering gear and the 6 x 21-inch bow torpedo tubes from the cancelled L-class Group III boats. Valuable contributions are included in the text from commanding officers of X.1 and experienced submariners of the First World War. All aspects about X.1, including the habitability, communication systems, armament, ammunition, and torpedo handling, are fully described.

At the launching of the X.1 an engine fitter, Philip Gilbert employed at Chatham Dockyard took a photograph, which was published in the Daily Herald, much to the chagrin of the Admiralty who viewed it as a breach of the Official Secret Acts. The matter was thoroughly investigated and to avoid widespread publicity about the 'secret X.1' Gilbert made a full apology, given a severe warning and the incident was closed. Another scandal arose in 1927 when a retired naval officer, Commander Colin Mayers was arrested for being in possession of 'top secret' plans of the X.1. The circumstances, subsequent trial is described by the author who considers the intrigues and implications surrounding this affair.

After commissioning X.1 underwent extensive sea trials and then joined the Mediterranean Fleet in 1927, based at Gibraltar and attached to a depot ship. The crew produced their own magazine 'Magazine X.1' from which extracts are to be found in the book. Apart from submarine exercises, X.1 visited numerous Mediterranean ports 'showing the flag' to underline the Royal Navy still ruled the waves. There was also plenty of opportunities for crew relaxation and entertaining guests and officials.

Undoubtedly, X.1 was an impressive submarine, but as the author explains she did not fulfil the high expectations of her designers and the Admiralty. There were constant mechanical breakdowns and equipment failures. A paramount priority for a submarine, is the avoidance of detection. X.1's fuel tanks instead of being welded had been riveted and constantly leaked leaving a trail of oil in her wake on the surface. An experiment to use shale oil instead of diesel fuel was a dismal failure. This and other unfortunate incidents are comprehensively accounted for by the author including an unfavourable report written by the captain of the 1st Submarine Flotilla. The X.1 returned to the United Kingdom and at the 1930 Chatham Navy Days, the secrecy surrounding the submarine was lifted when she was opened to the press and public.

Following a serious engine breakdown, the following year and a fire, X.1 sailed to Portsmouth for a dry docking and maintenance. On the 26th June 1931, as the water was being pumped out of the dock the shoring to keep the submarine upright collapsed and she tipped over to port with a forty-degree list. Acid split from her batteries causing a fire, which took almost an hour to extinguish. X.1 was refloated and successfully docked down having sustained relatively light damage to her outer hull. This incident gave the government and the Admiralty the opportunity to fully consider the long term, future of X.1. Eventually in 1933, she was placed into 'care and maintenance' and three years later scrapped.

With any experimental project, problems can and do arise. As the first of her class any deficiencies found in operating X.1 would be resolved, and improvements made before X.2 was constructed. However, X.1 was a considerable drain on the naval resources and X.2 was never ordered. Although the cruiser submarine project was shelved by the Royal Navy, the United States, France, and Japan built their own versions with large calibre guns, which achieved varying degrees of success in the Second World War. These and plans by Germany to build cruiser submarines are interestingly compared by the author.

Roger Branfill-Cook's extensive research has culminated in an outstanding book on the experimental submarine X.1. Readers who may have had experience on building and working on pre-nuclear submarines can only be impressed by the graphic detail enabling them to recall what the submarines of that era were like. Accompanying the text are very good photographs of X.1 and the internal drawings of the submarine by David Hill are excellent. The author expresses his considered thoughts and reflections on the X.1 and ponders what might have been if the project had been successful. In the appendices are extracts from X.1's Log's from December 1923 to June 1934 when she was paid off, examples of the original plans 1/48 in scale prepared by Chatham Dockyard and comparisons of the 5.2-inch and 5.25-inch guns, and an index.

This thoroughly enjoyable book has great relevance not only for those who have a knowledge of submarines but also for those who have a general interest giving the latter a valuable insight into the construction and operational aspects of submarines. It is also a tribute to those brave and courageous seamen who established the proud and honourable traditions of the Royal Navy's Submariners.

Roger Coleman